RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: _09/484,964A_

Source: _1Fw/6_

Date Processed by STIC: _7/10/06_

ENTERED

RAW SEQUENCE LISTING   DATE: 07/10/2006
PATENT APPLICATION: **US/09/484,964A**   TIME: 12:30:50

Input Set : **F:\Utsh248US.TXT**
Output Set: **N:\CRF4\07102006\I484964A.raw**

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  4 <110> APPLICANT: YEH, EDWARD T.H.
  6 <120> TITLE OF INVENTION: USES FOR A NOVEL CELL-DEATH-PROTECTING PROTEIN
  8 <130> FILE REFERENCE: UTSH:248US
 10 <140> CURRENT APPLICATION NUMBER: 09/484,964A
 11 <141> CURRENT FILING DATE: 2000-01-18
 13 <150> PRIOR APPLICATION NUMBER: 08/964,162
 14 <151> PRIOR FILING DATE: 1997-11-04
 16 <150> PRIOR APPLICATION NUMBER: 60/030,302
 17 <151> PRIOR FILING DATE: 1996-11-05
 19 <160> NUMBER OF SEQ ID NOS: 18
 20 <170> SOFTWARE: PatentIn Ver. 2.0
 23 <210> SEQ ID NO: 1
 24 <211> LENGTH: 1465
 25 <212> TYPE: DNA
 26 <213> ORGANISM: Homo sapiens
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W--> ` 27 <220> FEATURE:`
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 28 <221> NAME/KEY: CDS
 29 <222> LOCATION: (88)..(390)
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W--> ` 30 <400> SEQUENCE: 1`
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 32 agaccccgg gtgaagccac cgtcatc atg tct gac cag gag gca aaa cct tca 114
 33                                 Met Ser Asp Gln Glu Ala Lys Pro Ser
 34                                  1               5
 35 act gag gac ttg ggg gat aag aag caa ggt gaa tat att aaa ctc aaa 162
 36 Thr Glu Asp Leu Gly Asp Lys Lys Gln Gly Glu Tyr Ile Lys Leu Lys
 37  10              15                  20                  25
 38 gtc att gga cag gat agc agt gag att cac ttc aaa gtg aaa atg aca 210
 39 Val Ile Gly Gln Asp Ser Ser Glu Ile His Phe Lys Val Lys Met Thr
 40              30                  35                  40
 41 aca cat ctc aag aaa ctc aaa gaa tca tac tgt caa aga cag ggt gtt 258
 42 Thr His Leu Lys Lys Leu Lys Glu Ser Tyr Cys Gln Arg Gln Gly Val
 43          45                  50                  55
 44 cca atg aat tca ctc agg ttt ctc ttt gag ggt cag aga att gct gat 306
 45 Pro Met Asn Ser Leu Arg Phe Leu Phe Glu Gly Gln Arg Ile Ala Asp
 46          60                  65                  70
 47 aat cat act cca aaa gaa ctg gga atg gag gaa gaa gat gtg att gaa 354
 48 Asn His Thr Pro Lys Glu Leu Gly Met Glu Glu Glu Asp Val Ile Glu
 49      75                  80                  85
 50 gtt tat cag gaa caa acg ggg ggt cat tca aca gtt tagatattct 400
 51 Val Tyr Gln Glu Gln Thr Gly Gly His Ser Thr Val
 52  90                  95                  100
 53 ttttattttt tttctttcc ctcaatcctt tttattttt aaaaatagtt cttttgtaat 460
 54 gtggtgttca aaacggaatt gaaaactggc accccatctc tttgaaacat ctggtaattt 520
```

```
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                    Input Set : F:\Utsh248US.TXT
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   55 gaattctagt gctcattatt cattattgtt tgttttcatt gtgctgattt ttggtgatca 580
   56 agcctcagtc cccttcatat taccctctcc tttttaaaaa ttacgtgtgc acagagaggt 640
   57 cacctttttc aggacattgc attttcaggc ttgtggtgat aaataagatc gaccaatgca 700
   58 agtgttcata atgactttcc aattggccct gatgttcagc atgtgattac ttcactcctg 760
   59 gactgtgact ttcagtggga gatggaagtt tttcagagaa ctgaactgtg gaaaaatgac 820
   60 ctttccttaa cttgaagcta cttttaaaat ttgagggtct ggaccaaaag aagaggaata 880
   61 tcaggttgaa gtcaagatga cagataaggt gagagtaatg actaactcca aagatggctt 940
   62 cactgaagaa aaggcatttt aagatttttt aaaaatcttg tcagaagatc ccagaaaagt 1000
   63 tctaattttc attagcaatt aataaagcta tacatgcaga aatgaataca acagaacact 1060
   64 gctctttta gatttatttt gtactttttg gcctgggata tgggttttaa atggacattg 1120
   65 tctgtaccag cttcattaaa ataaacaata tttgtcaaaa atcgtactaa tgcttatttt 1180
   66 attttaattg tatagaaaga aaaaaatgcc taaaataagg ttttcttgca taaatactgg 1240
   67 aaattgcaca tggtacaaat ttttcttca ttactgtaca gggatgatgt taatgacttt 1300
   68 ggagcactga aagttactga agtgccttct gaatcaagga tttaattaag gccacaatac 1360
   69 ctttttaata ctcagtgttc tgttttttt aaaaacttga tattcccgta tggtgcatat 1420
   70 ttgatacagg tacccaatca tgttggataa atgggcatgc cagcc              1465
   72 <210> SEQ ID NO: 2
   73 <211> LENGTH: 101
   74 <212> TYPE: PRT
   75 <213> ORGANISM: Homo sapiens
   77 <400> SEQUENCE: 2
   78 Met Ser Asp Gln Glu Ala Lys Pro Ser Thr Glu Asp Leu Gly Asp Lys
   79  1               5                   10                  15
   80 Lys Gln Gly Glu Tyr Ile Lys Leu Lys Val Ile Gly Gln Asp Ser Ser
   81             20                  25                  30
   82 Glu Ile His Phe Lys Val Lys Met Thr Thr His Leu Lys Lys Leu Lys
   83         35                  40                  45
   84 Glu Ser Tyr Cys Gln Arg Gln Gly Val Pro Met Asn Ser Leu Arg Phe
   85     50                  55                  60
   86 Leu Phe Glu Gly Gln Arg Ile Ala Asp Asn His Thr Pro Lys Glu Leu
   87 65                  70                  75                  80
   88 Gly Met Glu Glu Glu Asp Val Ile Glu Val Tyr Gln Glu Gln Thr Gly
   89             85                  90                  95
   90 Gly His Ser Thr Val
   91             100
   93 <210> SEQ ID NO: 3
   94 <211> LENGTH: 774
   95 <212> TYPE: DNA
   96 <213> ORGANISM: Homo sapiens
W--> 97 <220> FEATURE:
   98 <221> NAME/KEY: modified_base
   99 <222> LOCATION: (53)
   100 <223> OTHER INFORMATION: Y = C or T
W--> 101 <220> FEATURE:
   102 <221> NAME/KEY: modified_base
   103 <222> LOCATION: (689)
   104 <223> OTHER INFORMATION: N = A, C, G or T
W--> 105 <220> FEATURE:
   106 <221> NAME/KEY: modified_base
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Input Set : **F:\Utsh248US.TXT**
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    107 <222> LOCATION: (739)
    108 <223> OTHER INFORMATION: N = A, C, G or T
W--> 109 <220> FEATURE:
    110 <221> NAME/KEY: modified_base
    111 <222> LOCATION: (744)
    112 <223> OTHER INFORMATION: N = A, C, G or T
    114 <400> SEQUENCE: 3
    115 cggcacgagg gtgctgcttg tgtgctcgtt tggtgcggac ctggtacctc ttyttgtgaa  60
    116 gcggcagctg aggagactcc ggcgctcgcc atggccgacg aaaagcccaa ggaaggagtc 120
    117 aagactgaga caacgatca tattaatttg aaggtggcgg ggcaggatgg ttctgtggtg 180
    118 cagtttaaga ttaagaggca tacaccactt agtaaactaa tgaaagccta ttgtgaacga 240
    119 cagggattgt caatgaggca gatcagattc cgatttgacg ggcaaccaat caatgaaaca 300
    120 gacacacctg cacagttgga aatggaggat gaagatacaa ttgatgtgtt ccaacagcag 360
    121 acgggaggtg tctactgaaa agggaacctg cttctttact ccagaactct gttctttaaa 420
    122 gaccaagatt acattctcaa ttagaaaact gcaatttggt tccaccacat cctgactact 480
    123 accgtatagt tttctctatt ctttcatttc ccccttcccc attcctttat tgtacataaa 540
    124 gtaactggta tatgtgcaca agcatattgc attttttttt tttttaacta aacagccaat 600
    125 ggtatgtttt gattgacatc caagtggaga cggggatggg gaaaaatact gattctgtgg 660
W--> 126 aaaataccc cctttctccc attagtggnc atgctccatt cagcccttaa acctttataa 720
    127 tcccaggtaa ggtaatttng cccncaccgg ttttacccaa aaaaaaaaa actt         774
    129 <210> SEQ ID NO: 4
    130 <211> LENGTH: 95
    131 <212> TYPE: PRT
    132 <213> ORGANISM: Homo sapiens
    134 <400> SEQUENCE: 4
    135 Met Ala Asp Glu Lys Pro Lys Glu Gly Val Lys Thr Glu Asn Asn Asp
    136  1               5                  10                  15
    137 His Ile Asn Leu Lys Val Ala Gly Gln Asp Gly Ser Val Val Gln Phe
    138             20                  25                  30
    139 Lys Ile Lys Arg His Thr Pro Leu Ser Lys Leu Met Lys Ala Tyr Cys
    140         35                  40                  45
    141 Glu Arg Gln Gly Leu Ser Met Arg Gln Ile Arg Phe Arg Phe Asp Gly
    142         50                  55                  60
    143 Gln Pro Ile Asn Glu Thr Asp Thr Pro Ala Gln Leu Glu Met Glu Asp
    144 65                  70                  75                  80
    145 Glu Asp Thr Ile Asp Val Phe Gln Gln Gln Thr Gly Gly Val Tyr
    146             85                  90                  95
    148 <210> SEQ ID NO: 5
    149 <211> LENGTH: 1733
    150 <212> TYPE: DNA
    151 <213> ORGANISM: Homo sapiens
W--> 152 <220> FEATURE:
    153 <221> NAME/KEY: modified_base
    154 <222> LOCATION: (19)
    155 <223> OTHER INFORMATION: N = A, C, G or T
    157 <400> SEQUENCE: 5
W--> 158 ttcggcacag gcgggaganc ggcggggccg aagcgtgaac tcgcccgctc cggcttgctt  60
    159 cccccgcgcc gcctccccgc gccgctcgga agccatgtcc gaggagaagc ccaaggaggg 120
    160 tgtgaagaca gagaatgacc acatcaacct gaaggtggcc gggcaggacg gctccgtggt 180
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PATENT APPLICATION: **US/09/484,964A**   TIME: 12:30:50

Input Set : **F:\Utsh248US.TXT**
Output Set: **N:\CRF4\07102006\I484964A.raw**

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161 gcagttcaag atcaagaggc acacgtcgct gagcaagctg atgaaggcct actgcgagag 240
162 gcagggcttg tcaatgaggc agatcagatt caggttcgac gggcagccaa tcaatgaaac 300
163 tgacactcca gcacagctga aatggagga cgaggacacc atcgacgtgt ccagcagca 360
164 gacgggaggt gtgccggaga gcagcctggc agggcacagt ttctagaggg cccgtcccca 420
165 gcccgggccg tccatcctcg cattgctgtt gaatggtgag cacgtgacca tgccgaccac 480
166 aaaggtgtct gcggaaactc gaggacattc accacgatga ttttcctctc tttgatgtac 540
167 ttcaagtgca actcaaaact atatctgcag ggatgaatct gtaacttaaa ttgggccaat 600
168 cagaattgtt atctttgttc aggtaaaatg agttgcaaga tattgtgggt acttttgtgt 660
169 gctcatttgt gttttccccc cctcctacaa cattttttta accccaaaat tatagcctga 720
170 atgttcgctt ttagtctggc caggatcctg actcctgagt tggttgcctc tccctgctc 780
171 actccagtca catagagaat tggtgtttcc cgcagtgggg attgcagctg ttggacaggt 840
172 attgggggca aggttggtag ggaggacaga ctgtcacttg ctgttacagg cacaggtgat 900
173 taaaatgcta aatattgcaa atttaagctt tgtcagtata tggaaaagtt gaagggaaaa 960
174 tactggaatg cttcttcaaa ggttaaaaaa taaccgagtc ttttggtaat ttgacccac 1020
175 gtgctctctg gccctcaagc atgtaacctc ggggtctgag gcccaggacc cacccccctg 1080
176 ccacccctcc caccccactc cctgctcagt acctggcgtt ggtacacagg caaggattgg 1140
177 cacaaccaaa attggccttt ttctccctct taatattgaa gaaattccca catttctcat 1200
178 ttggtaatgg tgttgtggcc tcagatttct tctagtattt gcttctgatg aatgattatg 1260
179 gtctatacat aaaaaagtaa gactaagtat tgctgaattt gcagttatgt tgtcgtgtat 1320
180 aagagctact tccaagtgtg gttacaaatg aacccatgga atgatgactt catgttcttc 1380
181 tcgtgggttt gtgccgtgct gctttccaaa taggtattga atttatgcat tagtctggtg 1440
182 atttcagttc tgtgaaatat tttgggatct ataccaatta aacattttca tagttctgcc 1500
183 tattgtcctt ccctgaggct ccattgctgc ttggtggcca ttctctgcct ttttacagtc 1560
184 acctgaacaa tgacccatca tctcttgctt gcttgaaatc ttgctgaaat gttctcattt 1620
185 cctgtttgct gtatgggctc gggtgggatg tttgttggct ctgttgtgtt tattcaccaa 1680
186 tttgtacatt atttgttgtc ctttactact gtaaacagta aatatagttt ggt      1733
188 <210> SEQ ID NO: 6
189 <211> LENGTH: 103
190 <212> TYPE: PRT
191 <213> ORGANISM: Homo sapiens
193 <400> SEQUENCE: 6
194 Met Ser Glu Glu Lys Pro Lys Glu Gly Val Lys Thr Glu Asn Asp His
195 1               5                   10                  15
196 Ile Asn Leu Lys Val Ala Gly Gln Asp Gly Ser Val Val Gln Phe Lys
197             20                  25                  30
198 Ile Lys Arg His Thr Ser Leu Ser Lys Leu Met Lys Ala Tyr Cys Glu
199         35                  40                  45
200 Arg Gln Gly Leu Ser Met Arg Gln Ile Arg Phe Arg Phe Asp Gly Gln
201     50                  55                  60
202 Pro Ile Asn Glu Thr Asp Thr Pro Ala Gln Leu Arg Met Glu Asp Glu
203 65                  70                  75                  80
204 Asp Thr Ile Asp Val Phe Gln Gln Gln Thr Gly Gly Val Pro Glu Ser
205                 85                  90                  95
206 Ser Leu Ala Gly His Ser Phe
207                 100
209 <210> SEQ ID NO: 7
210 <211> LENGTH: 9
211 <212> TYPE: PRT
212 <213> ORGANISM: Artificial Sequence
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RAW SEQUENCE LISTING   DATE: 07/10/2006
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Input Set : **F:\Utsh248US.TXT**
Output Set: **N:\CRF4\07102006\I484964A.raw**

W--> 213 <220> **FEATURE:**
    214 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
    215   Peptide
    217 <400> SEQUENCE: 7
    218 Arg Gly Ser His His His His His His
    219   1   5
    221 <210> SEQ ID NO: 8
    222 <211> LENGTH: 30
    223 <212> TYPE: DNA
    224 <213> ORGANISM: Homo sapiens
    226 <400> SEQUENCE: 8
    227 cttaggatcc atggcctcgg aagacattgc   30
    229 <210> SEQ ID NO: 9
    230 <211> LENGTH: 30
    231 <212> TYPE: DNA
    232 <213> ORGANISM: Homo sapiens
    234 <400> SEQUENCE: 9
    235 gtgtgaattc tagaccttgt acagcgtctg   30
    238 <210> SEQ ID NO: 10
    239 <211> LENGTH: 7
    240 <212> TYPE: PRT
    241 <213> ORGANISM: Artificial Sequence
W--> 242 <220> **FEATURE:**
    243 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
    244   Peptide
    246 <400> SEQUENCE: 10
    247 Arg Gly Ser His His His His
    248   1   5
    250 <210> SEQ ID NO: 11
    251 <211> LENGTH: 9
    252 <212> TYPE: PRT
    253 <213> ORGANISM: Influenza virus
    255 <400> SEQUENCE: 11
    256 Tyr Pro Tyr Asp Val Pro Asp Tyr Ala
    257   1   5
    259 <210> SEQ ID NO: 12
    260 <211> LENGTH: 4
    261 <212> TYPE: PRT
    262 <213> ORGANISM: Homo sapiens
    264 <400> SEQUENCE: 12
    265 His Ser Thr Val
    266   1
    268 <210> SEQ ID NO: 13
    269 <211> LENGTH: 101
    270 <212> TYPE: PRT
    271 <213> ORGANISM: Saccharomyces cerevisiae
    273 <400> SEQUENCE: 13
    274 Met Ser Asp Ser Glu Val Asn Gln Glu Ala Lys Pro Glu Val Lys Pro
    275   1   5   10   15

RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 07/10/2006
PATENT APPLICATION: US/09/484,964A   TIME: 12:30:51

Input Set : F:\Utsh248US.TXT
Output Set: N:\CRF4\07102006\I484964A.raw

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:3; N Pos. 689,739,744
Seq#:5; N Pos. 19

VERIFICATION SUMMARY   DATE: 07/10/2006
PATENT APPLICATION: **US/09/484,964A**   TIME: 12:30:51

Input Set : **F:\Utsh248US.TXT**
Output Set: **N:\CRF4\07102006\I484964A.raw**

L:27 M:283 W: Missing Blank Line separator, <220> field identifier
L:30 M:283 W: Missing Blank Line separator, <400> field identifier
L:97 M:283 W: Missing Blank Line separator, <220> field identifier
L:101 M:283 W: Missing Blank Line separator, <220> field identifier
L:105 M:283 W: Missing Blank Line separator, <220> field identifier
L:109 M:283 W: Missing Blank Line separator, <220> field identifier
L:126 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:660
M:341 Repeated in SeqNo=3
L:152 M:283 W: Missing Blank Line separator, <220> field identifier
L:158 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0
L:213 M:283 W: Missing Blank Line separator, <220> field identifier
L:242 M:283 W: Missing Blank Line separator, <220> field identifier